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MAJOR CONSIDERATIONS IN SCHOOL MODERNIZATION--AGE, LOCATION, EDUCATIONAL ADEQUACY. NEW LIFE FOR OLD SCHOOLS, NEWSLETTER NO. 22.

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A DESCRIPTION OF THE RELATIONSHIP BETWEEN SCHOOL MODERNIZATION AND BUILDING AGE, WITH PARTICULAR ATTENTION TO RENOVATION RATHER THAN NEW CONSTRUCTION TO MEET CHANGING EDUCATIONAL NEEDS, IS GIVEN. THE NEWSLETTER EMPHASIZES EDUCATIONAL ADEQUACY AS BEING MORE IMPORTANT THAN BUILDING AGE, AND DESCRIBES RENOVATION TECHNIQUES WHICH WILL FACILITATE THIS APPROACH. A MAJOR CONSIDERATION IS IN TEACHING NEEDS AND EDUCATIONAL METHODS AS CRITERIA IN ADDITION TO LIGHTING AND CLIMATE CONTROL WHICH SERVE PHYSIOLOGICAL NEEDS. OTHER ITEMS INCLUDE DECISION MAKING PROCESSES, COSTS, FLEXIBILITY, AND TEACHER EDUCATION. CLARIFICATION OF THE TERM SCHOOL MODERNIZATION IS ALSO INCLUDED. (MM)

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Newsletter 22, October 1967

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Major Considerations in School Modernization:

AGE, LOCATION, EDUCATIONAL ADEQUACY

Note: This article is based on remarks by John D. L'Hote, physical plant manager, division of school housing, Detroit Public Schools, before the Interstate School Building Service Conference. The Interstate group, representing school plant specialists from the state departments of sixteen states, met from August 22-25, 1967, on the campus of George Peabody College for Teachers, Nashville.

I found the assigned title intriguing. I have made no effort to determine the source of this title, but with apologies to this unknown person, I ask that you think through with me "Major Considerations in School Modernization: Age, Location, Educational Adequacy."

Granting that a strong correlation exists between the adjectives "modern" and "new" suggesting a similar relationship between the age of a school building and a need for modernization, I submit that age should not be the first consideration or even a consideration in decisions relating to educational facility upgrading.

Hurriedly, before someone leaves the room with the opinion that we preserve our old buildings and modernize the new ones in Detroit, I admit that factors closely related to age act to point out older buildings as those most in need of physical changes. Consider, however, the hypothetical situation in which the maintenance procedures in effect in an educational institution have truly maintained a building in an as-built condition. Consider, also, that the structure is in substantial conformity with present day standards of safety. In such a situation, it would be possible to neglect any consideration of the age of the building and to base decisions as to its future upon such criteria as "Do we need the pupil stations represented by the structure to house the present and/or the anticipated enrollment?" and, if so, "Can the structure be altered to accommodate the desired educational program at less cost than a new building could be constructed?"

Looking back to our title, we see that the second consideration is listed as location. Earlier this week, many of us were in attendance at a conference wherein the deliberate selection of school sites remote from their service area was promoted. This consideration of Educational Parks, together with the ever increasing use of bus transportation to permit larger schools to promote integration, or to ease overcrowding makes it seem reasonable to almost eliminate location as a consideration in our decision-making process.

The remaining factor—educational adequacy — cannot be similarly disposed of, and I propose as a new title "Educational Adequacy, the Major Consideration in School Modernization."

The educational adequacy of new school buildings and structures designed to house segments of the facilities of institutions of higher learning is assured by a planning process that starts with the development of educational specifications and proceeds into the plans for a facility to house the desired educational program. Most of us have been guilty of using a different approach in our consideration of existing buildings, one that is more physiological than educational. Recognizing that technological advances have brought our staff and pupils to expect higher standards of performance in heating, lighting and in acoustical and aesthetic environment than are provided in our older buildings, we have attempted to make these buildings more palatable with paint, acoustic tile, floor tile and lighting fixtures. Although educational upgrading has not been completely ignored, it has been largely limited to the accommodation of new equipment in such areas as laboratories and shops. Modernization, regardless of how it has been defined, has been practiced as the expenditure of very limited funds for superficial improvements to the cages for each age in the present structure.

Let's think through a more appropriate approach to the modernization of educational facilities. Assuming the possession of information that establishes the need for the housing of an approximate number of pupils for a period of ten or more years into the future and assuming that the structure presently utilized for this purpose is sound and is, or can be, made fire-resistant, let us proceed with the thought that it is possible to ignore the present existence of this building and treat the service area as we would an area requiring educational facilities. In other words, such an approach would start with a review of pupil enrollment projections for the district or institution covering a ten-year period. If such a study indicates that no significant decline is to be anticipated, the assumption can be made that all present structures are to be retained if it is possible to academically and economically justify their retention.

A Project Advisory Committee or committee representing the subcommunity with curriculum experts and facility experts would then be appointed and charged with the responsibility for determining the educational needs that exist and those that can be anticipated. These needs are then to be related into educational specifications, which are to be transformed by an architect into preliminary plans in the form of a design manual and estimated. Having determined the cost of the

Continued on page 4

Two Booklets Present

PITTSBURGH DESIGN STUDY

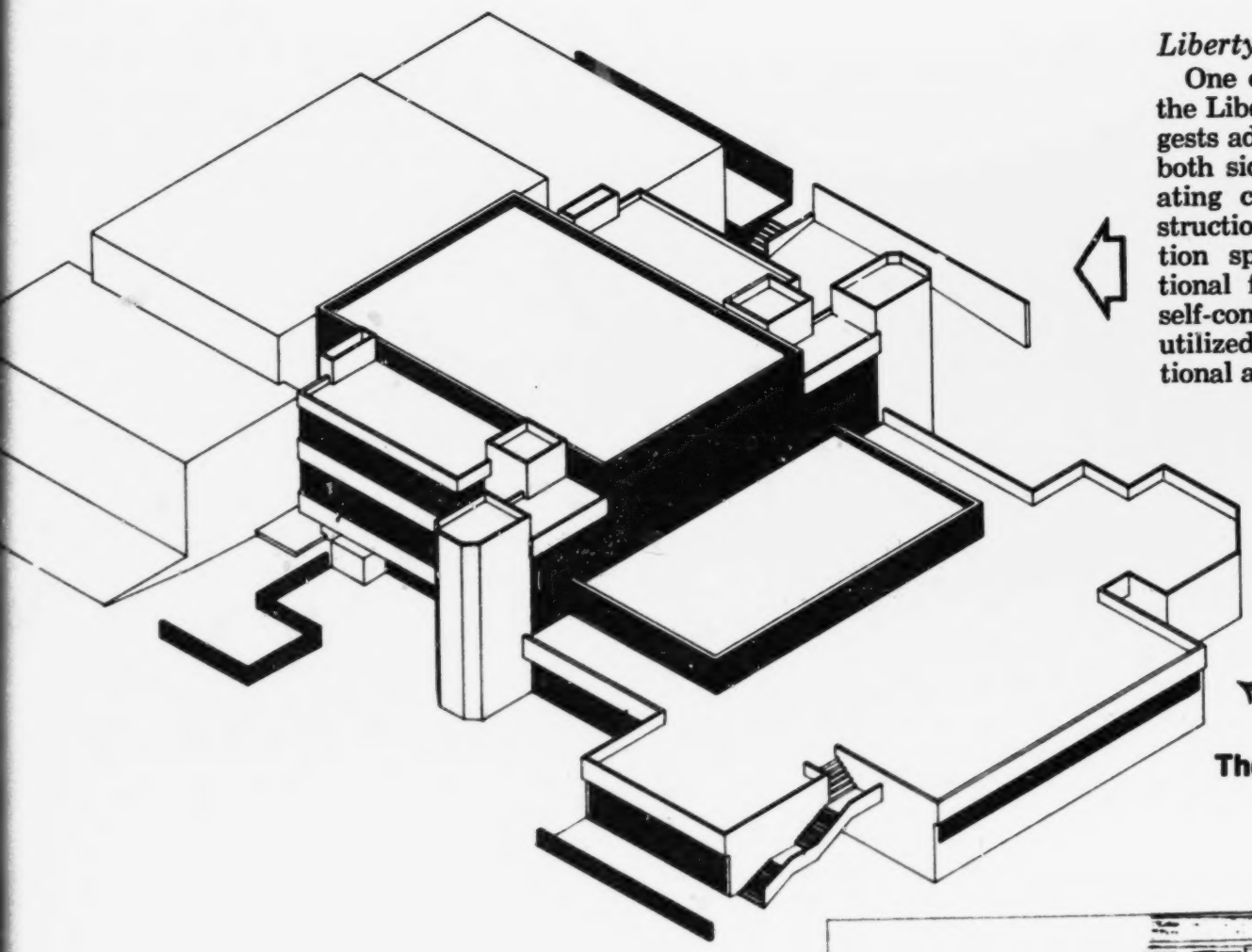
Two new booklets have been published adding to the Research Council's growing "idea library" of creative solutions to the problems of school modernization. These booklets are unique in that the solutions to the two existing schools are the suggestions of students in the department of architecture at Carnegie-Mellon University (formerly the Carnegie Institute of Technology). Two groups of students at Carnegie, working with six visiting architects (all known as specialists in school facilities planning) took as a design problem two existing Pittsburgh schools and addressed themselves to the problems of school modernization. The booklets summarize the results of the studies.

The actual designs were developed entirely by the students with counsel from their faculty, the visiting architects, and the staff of the Pittsburgh Public Schools. The students conducted their own research programs, visiting elementary schools, interviewing children, teachers and educational specialists.

Liberty School

Wightman School

The Schools



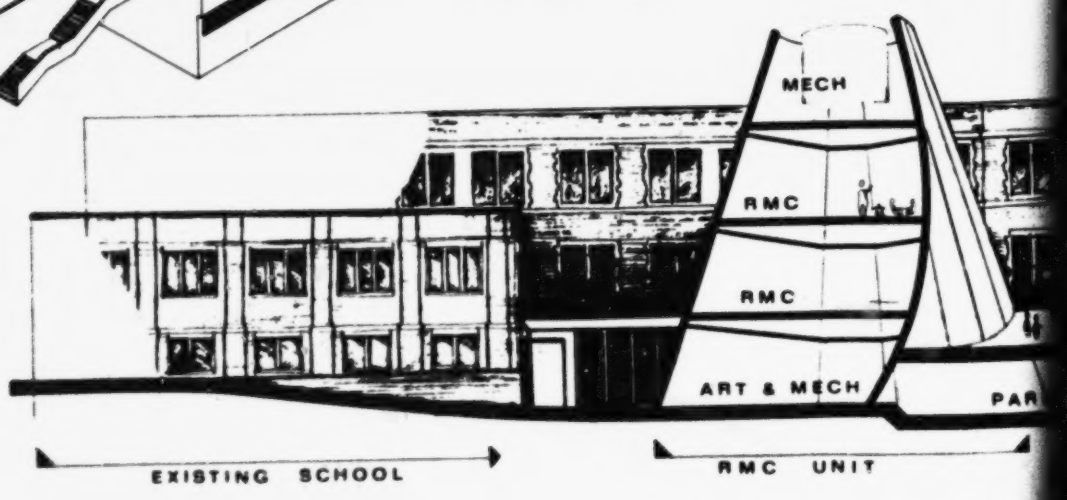
Liberty School Design

One of the student's solutions to the Liberty Elementary School suggests additional spaces projected on both sides of the old building, creating covered play areas. Art instruction areas, large group instruction spaces, and physical educational facilities are designed as a self-contained complex which can be utilized separately from the instructional areas.

The Liberty Elementary School

Liberty School Design

As part of the Liberty School solution a student suggested the fabrication of a standardized prototype unit (housing the Resource Materials Center) which would be capable of being "plugged-in" to any existing school giving long-run economy to the school system.

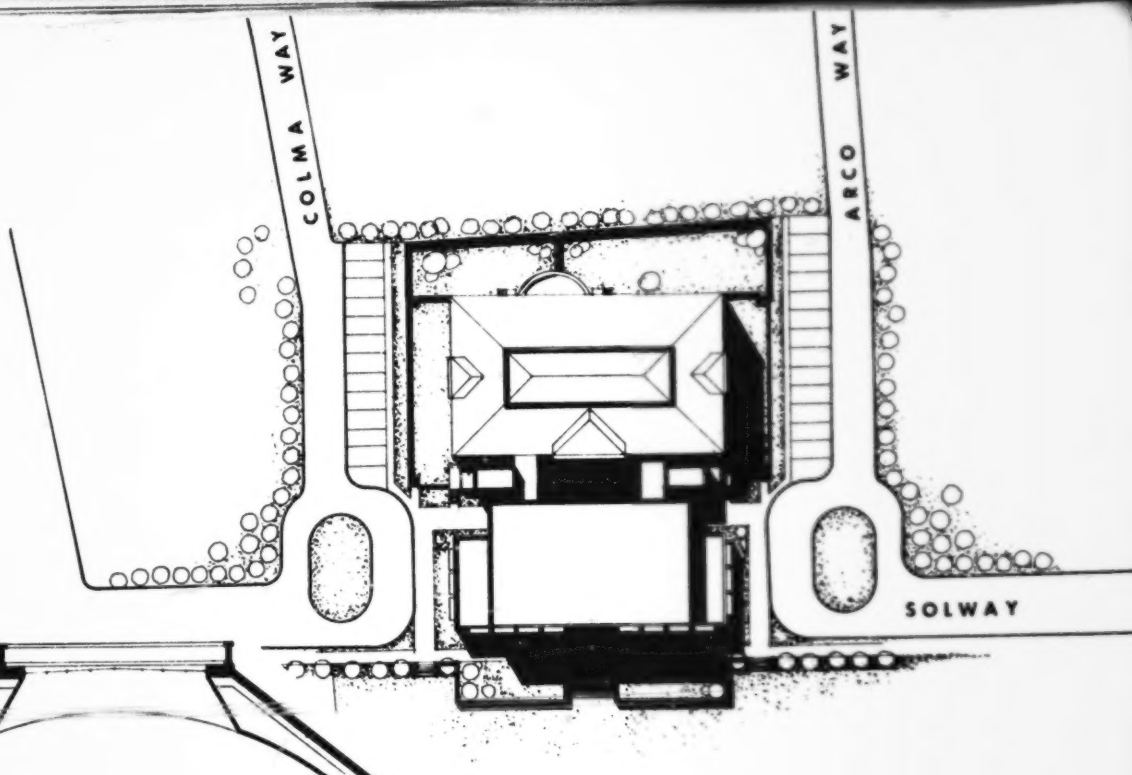


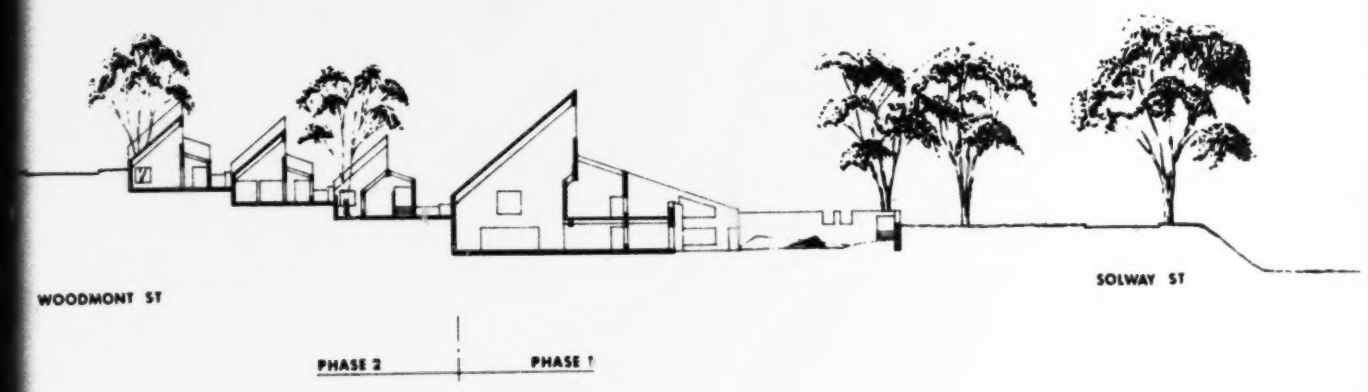
Wightman School Designs

For the Wightman Elementary School the student's suggested approaches ranged from . . .

. . . additions connected by walkways to permit construction of the addition without interference with the regular school sessions . . .

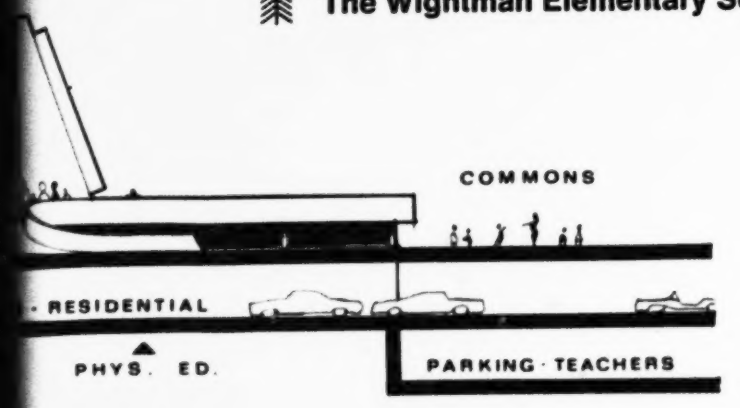
. . . to the addition of a resource materials tower with space usable as classrooms . . .





. . . to a five-year phased program resulting in an entirely new school.

The Wightman Elementary School



To receive copies of the two Pittsburgh Design Studies

—Copies of "Pittsburgh Design Study — The Wightman Elementary School" and "Pittsburgh Design Study — The Liberty Elementary School" are available from The Great Cities Research Council, 5400 North St. Louis Avenue, Chicago, Illinois 60625.

Age, Location, Educational Adequacy

Continued from page 1

replacement of an existing facility with a new structure intended to completely fulfill academic requirements of the area, it is, then, necessary to take the same educational specifications and to tax the ingenuity of the architect in attempting to determine the nature and the extent of alterations and/or additions required to house this program in the existing building. With such alterations also related into dollars, it is possible to present to the decision-making body, the alternative of replacing the present structure with a new structure that will fill academic needs or of modernizing the present structure to the point where it will, *with equal adequacy*, fill the academic needs.

At this point, it is possible to utilize any one of a number of rules of thumb, most common being that of 50% of construction cost—in other words, if it is possible to provide equivalent academic programs in the present building without expending more than 50% of the cost of a new building, it then becomes the desirable route as a sound investment.

The value of such rules is admittedly not too great in view of the emotions that govern decisions of this nature. Where a building in question is one which has enjoyed an outstanding reputation as an institution over the years, sentiment might rule for retention, regardless of cost.

In public school systems in larger communities, the reaction is more likely to be that of comparison with other sections of the district. If replacement is the recommended solution to the problem in one area, the sub-community faced with the recommendation for the modernization of its building is most apt to react unfavorably. Assuming no compromise with educational requirements, it is not possible to say that there is a right or wrong decision. If the committees have done their work well, the academic needs will be fulfilled in either course of action, and the decision will be based upon economics and, perhaps to a greater extent, on emotions.

The important aspect and consideration in modernization is the relatively new thought that modernization is not physical upgrading as an end in itself, but, rather, educational upgrading with physical upgrading as only a desirable inclusion as it has impact on the educational program. . .

. . . Referring back for a moment to the question of age, because of the national tendency toward the allocation of inadequate funds for operation and maintenance of physical facilities, there is a great tendency to equate age with a need for replacement. We have all visited institutions of higher learning in this country and abroad, however, where buildings are providing an adequate academic environment in their second or third century. Recognizing that this, at least in part, reflects the lack of change in the curriculum, it reminds us that there is no actual correlation between age and inadequacy, although one may exist between age and the physical environment provided.

Every outmoded school in the United States cannot be replaced with a new building. Just in Detroit we have over 200 buildings 40 years or older. Modernizing school buildings has to be a major part of the answer but requires imagination if it is to keep pace with educational requirements and create the proper environment to inspire, stimulate and encourage education. . .

. . . Flexibility is the word for modernization as it is in construction of schools for the future. In new building planning, we're at the point where educational specifications must be on a structure basis rather than on a room basis, with the thought that few, if any, permanent interior partitions should be contemplated.

In modernization an attempt must be made to introduce into a schoolhouse built for a traditional concept of education, the space and flexibility required to accommodate new concepts of the learning process, emphasizing individual rates of progress, individual study as well as group learning, flexible scheduling, cooperative teaching and improved human relations . . .

. . . It is popular for those of us involved with the physical plant to point accusing fingers at the Colleges of Education where new teachers are being trained by the same lectures that were used in preparing the present teachers, despite the availability of new methods, materials and the need for the incorporation of subject matter at a greater rate.

In the physical plant area we find ourselves equally guilty if we continue to consider building modernization and upgrading in terms of restoration rather than progress. In our contemporary world, knowledge is proliferating so rapidly that the educational environment becomes more dependent upon mechanical service systems and their related furniture and equipment than upon building structural systems. Despite the impression gained, there are many possibilities for remodeling within the restriction of our present egg crate structures. The work of the Great Cities Research Council in the area is pointing the way to the recognition that planning for modernization is not planning for physical upgrading but an opportunity to improve the educational program providing an exciting challenge for the planner and the architect.

The term we have used is "school modernization." Other terms with similar meanings are in common usage. "Remodeling" is commonly thought of as a change in structure. "Rehabilitation" is usually thought of as a general overhauling of the complete building or a major section thereof, the better to adapt it for continued use. School modernization will ordinarily incorporate some remodeling and some rehabilitation and frequently will involve additional construction. The difference is the goal of meeting the needs of changing education programs.

New Life for Old Schools Newsletter
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